

WHAT IS CLAIMED IS:

1. An image sensor module to be mounted to a printed circuit board, the image sensor module comprising:

5 a substrate having an upper surface formed with a plurality of first connection points, and a lower surface formed with a plurality of second connection points, which is electrically connect to the printed circuit board;

a photosensitive chip mounted to the upper surface of the substrate;

a plurality of wires for electrically connecting the photosensitive chip to the first connection points on the upper surface of the substrate;

10 a frame layer mounted to the upper surface of the substrate to surround the photosensitive chip, an inner edge of the frame layer being formed with an internal thread from top to bottom, and a transparent layer being fixed by the frame layer such that the photosensitive chip may receive optical signals passing through the transparent layer; and

15 a lens barrel formed with a chamber at a center thereof and an external thread at an outer edge thereof, the external thread being screwed to the internal thread of the frame layer, wherein the lens barrel has a through hole and an aspheric lens from top to bottom.

2. The image sensor module according to claim 1, wherein the frame layer is
20 made of industrial plastic material by way of injection molding to simultaneously form the internal thread and fix the transparent layer.

3. The image sensor module according to claim 1, wherein the transparent layer is a piece of transparent glass.

4. The image sensor module according to claim 1, wherein the lens barrel further has an infrared filter below the aspheric lens.

5 5. A method for manufacturing an image sensor module, comprising the steps of:

providing a substrate having an upper surface formed with a plurality of first connection points, and a lower surface formed with a plurality of second connection points, which is electrically connect to the printed circuit board;

10 mounting a photosensitive chip to the upper surface of the substrate;

providing a plurality of wires for electrically connecting the photosensitive chip to the first connection points on the upper surface of the substrate;

mounting a frame layer to the upper surface of the substrate so as to surround the photosensitive chip, wherein an inner edge of the frame layer is
15 formed with an internal thread from top to bottom, and a transparent layer is fixed by the frame layer such that the photosensitive chip may receive optical signals passing through the transparent layer; and

providing a lens barrel formed with a chamber at a center thereof and an external thread at an outer edge thereof, the external thread being screwed to the
20 internal thread of the frame layer, wherein the lens barrel has a through hole and

an aspheric lens from top to bottom.

6. The method according to claim 5, wherein the frame layer is made of industrial plastic material by way of injection molding to simultaneously form the internal thread and fix the transparent layer.

5 7. The method according to claim 5, wherein the transparent layer is a piece of transparent glass.

8. The method according to claim 5, wherein the lens barrel further has an infrared filter below the aspheric lens.